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The Benefits of Alternative Therapies on Adult Mental Health

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ABSTRACT

The purpose of the following descriptive pre and post study was to collect and analyze data to determine if there are benefits to alternative therapies on adult mental health.

Three types of alternative therapies were studied: aromatherapy, recreation therapy, and yoga. A literature review was conducted and pre and post questionnaires were administered. Frequencies and averages were run which showed that participants were mostly Caucasian, with an average age of 31 years and most diagnosed with depression and anxiety. Participants showed decreased levels of anxiety and depression after attending both aromatherapy and yoga classes. Participants showed decreased anxiety levels after recreation therapy, but increased depression. All three therapies were deemed helpful by participants. Due to obstacles experienced while collecting data, as well as the small sample size, more research needs to be conducted on the topic of alternative therapy benefits.

The Benefits of Alternative Therapies on Adult Mental Health

A Thesis

Presented to

The Faculty of the School of Social Work

Abilene Christian University

In Partial Fulfillment

Of the Requirements for the Degree

Master of Science in Social Work

By

Sara Bryan

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This thesis, directed and approved by the committee for the thesis candidate Sara Bryan, has been accepted by the Office of Graduate Programs of Abilene Christian University in partial fulfillment of the requirements for the degree

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To my family and friends for their constant support and optimism. To my parents for believing in me and fostering my education. To Bennett for his constant presence and encouragement throughout this process. I especially want to dedicate this thesis to my mom, who was by my side every step of the way and first introduced me to the benefits of alternative therapies. None of this would have been possible without her.

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CHAPTER I

INTRODUCTION

Statement of Problem

Over the past few years, the stigma regarding mental illness has slowly been improving. When depressed or anxious, people are now being encouraged to attend therapy or take medication. However, along with the growing recognition about the prevalence of mental health, interest in alternative therapeutic methods to treat illness rather than, or alongside, psychotherapy and pharmacology has simultaneously grown. Complementary and alternative medicines are therapeutic practices that stray from traditional Western medicine and can be practiced in place of or with regular medicine and therapy.

Aromatherapy, recreation therapy, and yoga are three types of complementary and alternative medicines that are commonly practiced. In the following literature review, the history and benefits of these interventions will be discussed, as well as peer-reviewed, scholarly studies. All three therapies are believed to have the effect of reducing symptoms of mental illness, increasing sleep, and improving overall physical and mental well-being.

Purpose of Study

As interest in alternative therapies increases, so does the interest in its clinical benefits. This study aims to answer the questions: Are there benefits to alternative

therapies on adult mental health? If so, what are they? The hypothesis is that there are benefits to these therapies and that those benefits are reduced symptoms of mental illness.

At Oceans Behavioral Hospital in Abilene, Texas, three types of alternative therapies are offered to inpatients. These are aromatherapy using essential oils, recreational therapy, and yoga/trauma-informed yoga. This quantitative study aims to discover the benefits of these alternative therapies on adult mental health. This research is important, as alternative therapies are cost-effective (Lee, 2009) and non-addictive (Malcolm & Tallian, 2017). They are also helpful as they can be practiced anytime and anywhere, alongside regular psychotherapy (Lee, 2009).

The following research is a quantitative, descriptive pre and post study. Questionnaires were administered to inpatients at Oceans Behavioral Hospital, and the data were analyzed to investigate what the benefits to alternative therapies are.

CHAPTER II

REVIEW OF LITERATURE

Complementary and alternative medicine is an increasingly popular form of mental health treatment. Essential oils, pet therapy, mindfulness, and sports therapy are just a few of the many kinds of alternative medicine. This literature review will attempt to define three types of complementary and alternative medicines--aromatherapy, recreational therapy, and yoga--and describe their benefits for adults who suffer with mental illness and the implications they have for the social work profession.

Search Terms

The sources acquired for the below literature review are peer-reviewed articles from scholarly journals or books that were published between the years 2019 and 2009. The sources were found on the ACU One Search Brown Library, EBSCO*host*, and PubMed databases using boolean searches and the following search terms: “trauma yoga,” “trauma informed yoga,” “yoga and mental health,” “meditation as therapy,” “aromatherapy and mental illness,” “aromatherapy and stress,” “stress and anxiety essential oils,” “recreational therapy,” “recreation therapy and mental health,” “recreation therapy and social work and mental illness,” “complementary and alternative medicine,” “alternative therapies,” “alternative therapy and social work,” and “integrative health in social work.”

Complementary and Alternative Medicine

Over the past decade, the use of nontraditional medicine to complement or use as an alternative to pharmaceuticals or psychotherapy has increased greatly (Clarke, Black, Stussman, Barnes, & Nahin, 2015). These therapeutic methods, which are known as complementary and alternative medicine (CAM) are also called integrative body-mind-spirit approaches or holistic medicine and are ways to improve well-being in nontraditional, cost-effective ways including, but not limited to, aromatherapy, yoga, mindfulness, meditation, music therapy, art therapy, and recreational therapy.

What is CAM?

CAM is therapeutic methods that can be practiced alongside, or in place of, traditional healing such as pharmaceuticals or psychotherapy. According to one source, CAM is “a broad set of healing resources...for the prevention, diagnosis, and treatment of diseases that functions as a complement to the mainstream medicine system” (Sanchez-Vidana, et al., 2017, p. 22).

Studies show that suffering from a mental disorder doubles the chance of using complementary and alternative medicine for extra relief from said illness due to the numerous benefits (Debrah, Buabeng, Donnir, & Kretchy, 2018). The benefits of CAM include being relatively cost effective (Lee, 2009), showing immediate results (da Silva Domingos & Braga, 2014), being non-addictive (Malcolm & Tallian, 2017), and being able to be practiced independently and almost anytime or anywhere (Lee, 2009). CAM also provides patients with mental illness an autonomous alternative to treatment, allowing them to take control and responsibility over their disorder (da Silva Domingos & Braga, 2014).

Implications for Social Workers

While the social work profession is known for embracing the integrative practice of person-in-environment and the biopsychosocial perspective, it has not yet fully adopted an integrative body-mind-spirit approach (Lee, Wang, Liu, Raheim, & Tebb, 2018). Expanding to include this approach will “strengthen the knowledge base of social work to include neuroscience and biological sciences” and will allow social workers to better and more effectively serve diverse constituents by expanding treatment opportunities (Lee et al., 2018, p. 263). Knowing about alternative therapies is especially important for those social workers who work with low-income clients, clients experiencing substance abuse, and/or clients in mental health settings.

Since CAM is relatively cheap when compared to the cost of medication or psychotherapy, therapies such as meditation, yoga, and aromatherapy are appropriate alternatives for low-income clients and the homeless (Lee, 2009). Also, complementary medicine is not addictive and therefore does not cause dependence, benefiting clients who abuse substances (Malcolm & Tallian, 2017). For example, using aromatherapy to treat anxiety rather than a pharmaceutical is preferred because it has the same relaxing outcome without the possibility of dependence.

Aromatherapy

Currently, a person suffering from a mental illness is given psychopharmaceuticals as a first resort. Unfortunately, many people do not receive full satisfaction from medication and experience a variety of uncomfortable side effects such as nausea, agitation, weight gain, insomnia, and sexual dysfunction (Sanchez-Vidana et al., 2017). Even more so, these medications may take a long time to provide full benefits.

For these reasons, people have resorted to alternative medicine such as aromatherapy. Simply put, aromatherapy is the utilization of plant-based essential oils to treat physical and psychological health issues (Hur, Song, Lee, & Lee, 2014). Some scientists believe that the effectiveness of aromatherapy is due to a relationship between essential oils and the sympathetic and parasympathetic nervous systems (Hur et al., 2014). Hur et al. (2014) explains that aromatherapy decreases stress and promotes relaxation by decreasing activity in the sympathetic nervous system, the system in charge of involuntary responses and the “fight or flight” response (Lanese, 2019), and increasing activity in the parasympathetic nervous system--the part of the autonomic nervous system that induces relaxation (Lanese, 2019).

The use of essential oils is an international concept that can be traced back thousands of years. The Chinese used essential oils as incense, the Egyptians used them for embalming, and the Romans used them for bathing (Herz, 2009). However, the term “aromatherapy” was coined in 1920 by the French chemist Rene-Maurice Gattefosse (Herz, 2009). Since then, the use of aromatherapy as treatment has grown greatly and is still growing.

Use of Essential Oils

Essential oils are lipophilic chemicals extracted from plants that have therapeutic qualities resembling those of drugs (Malcolm & Tallian, 2017). One group of authors suggested that the effectiveness of essential oils, especially for treating anxiety and depression, is due to being composed of the phytochemicals of linalool, limonene, and pimentone (Han, Gibson, Eggett, & Parker, 2017). Essential oils can be applied topically or inhaled (Hur et al., 2014).

After testing essential oils, researchers have found that each oil produces different effects that help a plethora of issues. Scientist and professor of pharmaceutical chemistry, Gerhard Buchbauer, researched the chemical compounds that make up essential oils (Nierenberg, 2015). Through this research, he discovered that essential oils are volatile organic compounds with different biological makeups, causing each oil to release a specific aroma that causes a specific effect (Nierenberg, 2015).

Other researchers, through testing and experiments, were able to narrow down how each essential oil helps people with mental illnesses. Using the State-Trait Anxiety Inventory and the Pittsburgh Quality Sleep Index in a randomized control trial, Ozarkman, Dugum, Yilmaz, and Yesilbalkan (2018) found that lavender, perhaps the most popular essential oil, is used to treat sleep disorders, decrease stress, and increase overall well-being. A systematic review of literature showed that due to its uplifting nature, clary sage is used for sleep disorders and stress, as well as for anxiety, depression, and to calm irritable children (Herz, 2009). The rosemary essential oil is good for clearing the mind and provoking memory function (Herz, 2009). Both sandalwood and sweet marjoram have soothing qualities. Sandalwood is specific for inducing sleep, while sweet marjoram is used for relieving negative emotions (Herz, 2009). These are just a few essential oils that are used for aromatherapy. According to a pilot study, a greater effect can be achieved by combining essential oils (Han et al., 2017). For example, in a review of the aromatherapy used by mental health professionals conducted by Soto-Vasquez, Alavardo-Garcia, and Sagastegui-Guarnez (2018), it was discovered that the combination of lavender, bergamot, and cananga in the proportion 2:2:1 can be used to significantly lower stress levels. In the article, nurses successfully used this proportion of

the specific essential oils to decrease the stress levels of patients in an operating room (Soto-Vasquez, Alvarado-Garcia, & Sagastegui-Guarnez, 2018).

Benefits of Aromatherapy

One reason aromatherapy is appealing is due to the immediate effect felt by people compared to medication (Sanchez-Vidana et al., 2017). It can take up to a few months for a person to reap the full benefits of medication, depending on the person and the medicine (Sanchez-Vidana et al., 2017). Medication also provides an opportunity for dependence, addiction, withdrawal, and side effects, while essential oils do not (Malcolm & Tallian, 2017). This makes them suitable alternatives to medication for people with mental illness and a history of substance abuse. Aromatherapy also appeals to people with low socioeconomic status because of its economic accessibility (Soto-Vasquez et al., 2018).

Not only is aromatherapy practically a good choice of CAM, it also has a high success rate among people with mental illness, and various other ailments. For example, a quantitative study done by Ozarkman et al. (2018) looked at how aromatherapy benefits terminal cancer patients. A randomized control trial of 70 patients filled out before and after questionnaires to see how essential oils benefited them (Ozarkman et al., 2018). Sleep disorders, grief, depression, and overall pain were common among cancer patients due to the possibility of passing away and the harsh treatments (Ozarkman et al., 2018). Patients were also on a multitude of medications and adding more may have done more harm than good or might not have combined well with existing medicine. The authors set out to see if aromatherapy affected the sleep patterns and anxiety in these patients, and

the study results showed that aromatherapy decreased anxiety and improved sleep quality (Ozarkman et al., 2018).

Recreational Therapy

Mental illness often causes people to have “inactive lifestyles,” as they tend to remove and isolate themselves (Fish, 2018), which can cause obesity (Fenton et al., 2017). Recreational therapy attempts to combat this while simultaneously addressing psychological issues and improving well-being. Recreational therapy stresses the importance of addressing physiological issues caused by mental illness as well as the psychological. Recreational therapists believe that recreation therapy is “meaningful and motivating in itself and promotes psychological health” (Elsborg et al., 2019, p. 1). These therapists also believe that building a community through sports and recreation helps to satisfy “the need for relatedness” (Elsborg et al., 2019).

Many studies have been conducted to determine the effectiveness of recreational therapy for people suffering from mental illness. Becofsky, Baruth, and Wilcox (2016) were skeptical whether physical activity truly contributed to patients’ recovery or if other outside factors were the cause. They conducted a secondary data analysis of a quasi-experimental study of various mental health programs and determined that recreation is, in fact, a contributor to recovery. At mental health programs, patients who are hospitalized tend to be even less active than those who are not, so Deenik, Tenback, Tak, Hendriksen, and Harten (2018) did an observatory study to research the effects of implementing multidisciplinary lifestyle-enhancing treatments in mental health inpatient facilities. The researchers saw that after 18 months, patients with severe mental illness showed significant improvement in social functioning and impaired skills (Deenik et al.,

2018). Another study was done to see if simply running with a group once a week had any effect on a person's mental health (Grunseit, Richards, & Merom, 2017). The authors collected data using a "national, online survey of 865 adults" and used regression models to test associations between the results (Grunseit et al., 2017, p. 1). The results showed that a significant number of people had improved satisfaction of life after only a short time (Grunseit et al., 2017).

These studies, along with others, have determined quite a few benefits of recreational therapy. One integrative study looked solely at existing research to analyze the benefits of recreation therapy, and determined that there are many (Fenton et al., 2017). The authors found strengthened recovery in mental illness patients when the recreation includes "enjoyable, expressive and meaningful leisure experiences" (Fenton et al. 2017, p. 2). The researchers also discovered that recreational therapy resulted in an increased sense of belonging, increased feelings of social inclusion, increased self-esteem, increased sense of accomplishment, and increased ability to cope (Fenton et al., 2017). The results also included reports of decreased stress, improved life satisfaction, improved sleep, better mood, increased ability to cope with their illness, and an overall decrease in mental illness symptoms (Fenton et al., 2017).

Body-Mind-Spirit Integrative Medicine

Integrative body-mind-spirit medicine is holistic medicine that focuses on improving the overall well-being of a person, rather than simply on reducing symptoms (Gaddy, 2018). This model is another international, ancient practice that integrates concepts from Buddhism, Daoism, and traditional Chinese medicine, as well as from Western therapy (Lee, 2009). The body-mind-spirit approach emphasizes forgiveness,

letting go, self-love, and awareness (Lee, 2009), which are all important lessons for people suffering from mental illnesses. Yoga and meditation are the most popular body-mind-spirit therapies.

Yoga

Yoga is a mind-body intervention that connects the mind, body, and behavior to improve well-being (Cramer, Lauche, Langhorst, & Dobos, 2013). Yoga has been around for over 5000 years, with its roots as a part of an ancient Indian spiritual practice (Cramer et al., 2013). Researchers suggest that practicing yoga releases dopamine into the brain and is “associated with increased plasma serotonin” (Cramer et al., 2013, p. 2). Lately, therapists have been promoting the use of trauma-sensitive and trauma-informed yoga as a treatment for people with PTSD, anxiety, or depression.

Trauma-Informed Yoga

Trauma-informed yoga is “yoga adapted to the unique needs of the individual working to overcome trauma,” and it “creates a safe, tailored practice for students to learn how to respond rather than react to symptoms” (Justice, Brems, & Ehlers, 2018, p. 39). Nguyen-Feng, Clark, and Butler (2019) believe that the reason yoga is an effective treatment is the fact that it addresses the physiological impact that trauma has on the body rather than just the psychological effects. A meta-analytic review of randomized control trials about yoga’s effects on PTSD patients showed that yoga appears to improve somatic regulation and body awareness in people suffering from PTSD, which are imperative to regulate emotions (Gallegos, Crean, Pigeon, & Hefner, 2017).

According to the Substance Abuse and Mental Health Services Administration (2014), or SAMHSA, at least 25% of any yoga class will be people who have been

exposed to trauma. It is important for instructors to be aware of this, as yoga can be easily sexualized and can cause PTSD patients to react poorly, especially those who have been sexually abused. SAMHSA (2014) encourages yoga instructors to remember the four R's: realization, recognize, respond, and resist re-traumatization.

Other than the poses, Gallegos and colleagues' (2017) meta-analysis showed that meditation is an important part of yoga practice because it teaches reflection rather than response. Meditation encourages awareness by being mindful of one's surroundings and of one's thoughts by practicing breathing and relaxation techniques (Nguyen et al., 2019). Meditation also teaches emotional self-regulation, mindfulness, and how to calm the mind (Nguyen et al., 2019).

Summary

Complementary and alternative medicines are nontraditional ways to improve well-being in people suffering from mental illness. Three types of CAM are aromatherapy, recreation therapy, and yoga. Aromatherapy uses essential oils from plants to treat psychological and physiological issues through the topical or olfactory distribution of oils. Recreational therapy endorses physical activity as a way of improving mental health. Yoga is a form of integrative body-mind-spirit medication that helps to teach reflection, relaxation, and mindfulness. These therapies all show to have many benefits and prove to help people suffering from all kinds of mental illness, including anxiety, depression, and PTSD. However, more research needs to be done on the effects and benefits of CAM, as this is a growing phenomenon and fairly new in Western medicine.

CHAPTER III

METHODOLOGY

This study analyzed data collected from patients at Oceans Behavioral Hospital to discover the benefits of three alternative therapies on adult mental health. The question to be answered is whether a patient's mental health benefit from alternative therapies. The hypothesis is that a patient's perception of their own mental health and well-being will improve with exposure to alternative therapies. This section describes the research method and design.

Research Design

This research is a quantitative descriptive pre and post study, which means that the research looked at the participants' well-being before and after each therapy. Alternative therapy classes were already being offered at Oceans inpatient unit, so participants only needed to sign up for which of the three classes they wanted to be part of for the study: aromatherapy, trauma-informed yoga, and/or recreational therapy. The participants visited with the researchers before and after the selected alternative therapy class to fill out pre and post questionnaires. The assessment used was originally the Five-Factor Wellness Inventory but was changed to a shorter, tailored questionnaire.

Population and Sample

The participants who were considered for this research study were adult inpatients at Oceans Behavioral Hospital. Patients in the geriatrics and minor wing were excluded, as was any patient under legal guardianship who was unable to act on his/her own behalf.

The selected participants were led by therapists trained in the specific alternative therapies. All three classes are taught by the same certified therapists.

Participation Risks

The risks of participating in this study were minimal, as before each class each patient was asked about allergies or a need for modifications. A breach of confidentiality was a risk, but precautions were in place to minimize this risk. No data protected by HIPAA or FERPA were collected, and all information was stored in a secure, on-campus location or in a password-protected computer.

Instruments

The Five-Factor Wellness Inventory (FFWEL) was to be used to assess the effectiveness of the alternative therapy classes. The FFWEL was originally chosen because the researcher desired to determine if perception of wellness was an additional benefit of aromatherapy, recreation therapy, and yoga. Studies have confirmed the validity and reliability of this instrument in measuring this concept (Myers & Sweeney, 2014). Due to the complexity and length of this instrument, some patients had difficulty completing it.

Thus, a shorter, less complex questionnaire was created to measure the benefits of the therapies. This new instrument aimed to assess the helpfulness of the alternative therapies and see if they helped reduce anxiety and depression levels in patients by using a Likert scale. The questionnaire the participants completed consisted of three main questions: The participant's current level of anxiety, current level of depression, and the helpfulness of the therapy. The participants rated their levels of anxiety and depression based on a five-point scale (1= None, 2= Little, 3= Okay, 4= Bad, and 5= Extreme). They

then rated the level of helpfulness of the intervention. They were told to answer on a scale of 1 to 5 (1= Not helpful at all, 2= A little helpful, 3= Helpful, 4= Very helpful, and 5= Extremely helpful).

Data Collection and Analysis

An IRB application was approved, and no data were collected until approval was received (see Appendix A). All collected data were entered into a password-protected Excel file on a secure laptop that could only be accessed by the researcher. The researcher used the appropriate statistical analysis under the supervision of the thesis committee chair. Frequencies, averages, and ranges of the quantitative data were run in place of a basic statistical *t*-test and other statistical analyses due to a small *n*.

CHAPTER IV

RESULTS

The sample consisted of 31 inpatients ($n=31$) at Oceans Behavioral Hospital.

Table 1 provides the profile of the participants by age, race, and diagnosis. Overall, they averaged 31 years old and were primarily Caucasian (81%) with a majority diagnosis of depression and anxiety (42%).

Table 1

Adult Inpatient Demographics

Variable		$n=31$ (100%)
<hr/>		
Age		
	Mean	31 years
	Range	46 (18-64)
Race		
	White	25 (81%)
	Nonwhite	6 (19%)
Diagnosis*		
	Depression/Anxiety	13 (42%)
	Bipolar Disorder	6 (19%)
	Alcoholism	2 (6%)
	Schizoaffective Disorder	2 (6%)

* $n=6$ (19%)

Table 2 provides the self-report of pre and post averages for anxiety and depression in the participants. On the Likert scale, 1= None, 2= Little, 3= Okay, 4= Bad, and 5= Extreme. After both aromatherapy and yoga, anxiety and depression levels

decreased. After recreation therapy, anxiety levels decreased, while depression levels increased.

Table 2

Anxiety and Depression Pre and Post Averages

Variable	Pre	Post
Aromatherapy	(n=12)	(n=12)
Anxiety	3.4	2.5
Depression	3.1	2.6
Recreation Therapy	(n=15)	(n=15)
Anxiety	3.6	2.0
Depression	2.7	2.9
Yoga	(n=4)	(n=4)
Anxiety	2.5	1.8
Depression	2.3	1.5

Table 3 provides the pre and post averages for the helpfulness of each therapy. Participants were asked how helpful they thought the therapy would be and how helpful it actually is on a scale of 1-5, with one being not helpful and 5 being extremely helpful. Overall, the helpfulness of each therapy proved to be better than what the participants originally thought.

Table 3

Helpfulness Pre and Post Averages

Variable	Pre	Post
Aromatherapy	3.8	4.3
Recreation Therapy	3.5	3.9
Yoga	3.3	4.0

The sample size for yoga was much smaller than expected due to problems with scheduling and communication at Oceans Behavioral Hospital. There were many

schedule changes due to illness, patient wishes, census size, or workload. There was also a lack of efficient communication that caused delays in data collection. Originally, participants were going to fill out a Five-Factor Wellness Inventory as a pre and post instrument, but due to the above obstacles, patient abilities, and patient schedules, the instrument used was much shorter. A few yoga participants attempted to fill out the FFWEL before the therapy, but they were unable to finish it due to difficulty understanding and reading the questionnaire.

CHAPTER V

DISCUSSION

Review of Findings

The sample consisted of 31 inpatients ($n=31$) who provided informed consent. The majority of participants were Caucasian ($n=25$) and diagnosed with anxiety or depressive disorders ($n=13$). Six participants were unable to answer that question ($n=6$). There were numerous issues that prevented the collection of the anticipated number of participants, as schedule revisions, lack of responsive communication, and a sudden change in supervisor resulted in data collection delays.

Due to these delays, the FFWEL was not able to be used. Some patients had difficulty reading or understanding the instrument due to lack of intellectual ability or possibly being under the influence of new medications. However, this was a problem that was not enough to prevent them from being able to provide informed consent. Rather, the form was simply too complex for some to consistently understand. Instead, the participants took a much shorter questionnaire developed for this project that asked them to rank their levels of anxiety and depression. This is a consistent problem found in research with hospitalized psychiatric patients. Medications may either help or impair cognitive ability (Macqueen & Memedovich, 2016). For example, researchers found that many mental health medications cause “drowsiness,” “slow thoughts,” and “loss of motivation” (Read & Williams, 2019).

Time was also a factor in the decision to not use the FFWEL. The continual delays and patient schedules caused the participants to not have enough time to fill out both the pre and post FFWEL surveys. Some patients were able to complete a pre survey but left immediately after the therapy due to medication needs or visitation. For this reason, it was necessary to develop and use the shorter questionnaire.

The instrument the participants completed consisted of three main questions-- the participants current level of anxiety, current level of depression, and the helpfulness of the therapy. The participants rated their levels of anxiety and depression based on a five-point scale (1= None, 2= Little, 3= Okay, 4= Bad, and 5= Extreme). The average level of anxiety before aromatherapy was $n=3.4$, while the average level afterwards was $n=2.5$. The average level of depression before aromatherapy was $n=3.1$, while the average post therapy was $n=2.6$.

Based on these results it would appear, in the absence of a basic *t*-test statistical comparison, that aromatherapy seems to be beneficial in improving mental health in adults. Consistent with prior research, using essential oils for aromatherapy helps to decrease feelings of anxiety and depression (Ozarkman et al., 2018). Before recreation therapy, the mean anxiety level was $n=3.6$, while the post mean anxiety level was $n=2.0$. The average for depression before the therapy was $n=2.7$ and the post average was $n=2.9$. Fenton et al. (2017) found that recreation therapy is a good way to reduce mental illness symptoms, and the research confirms it. Recreation therapy results showed decreased anxiety levels, yet slightly increased depression. The pre anxiety average before yoga was $n=2.5$ and the post average was $n=1.8$. The level of depression before trauma-informed yoga averaged $n=2.3$ and the average after yoga was $n=1.5$. These results are consistent

with the hypothesis that yoga is another alternative therapy that decreases depression and anxiety and promotes overall wellness in adults (Cramer et al., 2013). Overall, these three alternative therapies appear to be beneficial in decreasing levels of anxiety and depression in adults.

The other question on the instrument asks about how helpful the therapy was. Before the therapy, participants were asked how helpful they thought the therapy would be, and after the therapy, they answered with how helpful it was. They were told to answer on a scale of 1 to 5 (1= Not helpful at all, 2= A little helpful, 3= Helpful, 4= Very helpful, and 5= Extremely helpful). The level of helpfulness before aromatherapy was 3.8 and after it was 4.3. The level of helpfulness before recreation therapy was 3.5 and after it was 3.9. Finally, the level of helpfulness before yoga was 3.3 and after it was 4.0. Overall, all three therapies look to be very helpful in adult mental health, which is consistent with research about the helpfulness of these alternative therapies. da Silva Domingos and Brava (2014) and Sanchez Vidana and others (2017) found that alternative therapies are helpful to adult mental health by improving wellness, reducing anxiety, depression, and stress, and creating a sense of control.

Again, the limited number of individuals who participated and not having time to complete a basic student *t*-test pre and post therapy analysis of the scores has prevented an analysis of the exact identification of the significant ways in which the individual therapies were proven to be helpful with the individual patient. However, the review of the findings would suggest that they are consistent with the existing literature.

For example, aromatherapy has a consistently high success rate in helping people who suffer from a mental illness. During aromatherapy at Oceans, patients were taught

about essential oils, how they help, and how to properly use them. Different essential oils have shown to have specific, healing effects. Sleep disorders and stress are reduced by using clary sage or sandalwood (Herz, 2009). Clary sage is also used to help control anxiety and depression, as is lavender and sweet marjoram (Herz, 2009). Researchers also found that stress can be significantly reduced by a combination of lavender, bergamot, and cananga (Soto-Vasquez, Alvarado-Garcia, & Sagastegui-Guarnez, 2018). Ozarkman et al. (2018) conducted research that showed that aromatherapy decreases anxiety, and the results from patients at Oceans agree with these results, as patients reported lower levels of anxiety and decreased depression.

Existing research suggests that recreational therapy increases self-esteem, the sense of belonging, and improves life satisfaction (Fenton et al., 2017). While the participants of this study contradicted these conclusions, they did report that recreation therapy reduces anxiety. Fenton et al. (2017) agrees that levels of anxiety decrease after recreation therapy.

Researchers have found that connecting the mind, body, and behavior, improves overall well-being (Cramer et al., 2013). Yoga is beneficial for those suffering from a mental illness because it teaches the importance of not reacting to symptoms, but responding to them instead (Justice, Brems, & Ehlers, 2018). As a result, therapists encourage patients to try yoga to help with anxiety, depression, sleep disorders, and PTSD. The patients at Oceans confirmed that yoga is a helpful tool by reporting lower levels of anxiety and depression after practicing the therapy. Researchers suggest this is because, when practicing yoga, dopamine is released into the brain and increases serotonin, causing an uplift in mood (Cramer et al., 2013).

Implications

Despite a small sample size, participants reported decreased anxiety and depression after both aromatherapy and yoga classes. This would suggest that the agency should continue to offer these classes. Although recreation therapy appeared to decrease anxiety, it did increase depression levels. To fully answer the question of continuing alternative therapies, it would be appropriate to evaluate using a larger sample size. Participants reported that all three therapies were helpful, implying that alternative therapies do in fact benefit adult mental health. This implication is consistent with current research.

Limitations

There were several obstacles experienced that caused problems collecting data, resulting in a small sample size: schedule changes, lack of responsive communication, and a change of supervisor. Due to therapist and patient illnesses, schedule changes, and workload, the therapy times were changed or cancelled more than once. Communication about these changes was insufficient, causing many delays in the start and continuation of data collection. There was also a sudden change in intern supervisor mid-year. The new supervisor was unaware of the study and the progress that had been made and was therefore unable to be a mentor or guide during the time of data collection. According to Al Dalbhi et. al. (2019), research supervision, time management, and appropriate analysis tools can cause obstacles when collecting clinical research data if they are not performed correctly. As indicated above, data collection was negatively influenced by all three of these issues within this project.

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APPENDIX A

Institutional Review Board Approval Letter

ABILENE CHRISTIAN UNIVERSITY
Educating Students for Christian Service and Leadership Throughout the World
Office of Research and Sponsored Programs
320 Hardin Administration Building, ACU Box 29103, Abilene, Texas 79699-9103
325-674-2885



January 13, 2020

Sara Bryan
Department of Social Work
Box 27866
Abilene Christian University

Dear Sara,

On behalf of the Institutional Review Board, I am pleased to inform you that your project titled "The Benefits of Alternative Therapies on Adult Mental Health",

was approved by expedited review (Category 7) on 1/13/2020 (IRB # 19-147). Upon completion of this study, please submit the Inactivation Request Form within 30 days of study completion.

If you wish to make any changes to this study, including but not limited to changes in study personnel, number of participants recruited, changes to the consent form or process, and/or changes in overall methodology, please complete the Study Amendment Request Form.

If any problems develop with the study, including any unanticipated events that may change the risk profile of your study or if there were any unapproved changes in your protocol, please inform the Office of Research and Sponsored Programs and the IRB promptly using the Unanticipated Events/Noncompliance Form.

I wish you well with your work.

Sincerely,

Megan Roth, Ph.D.
Director of Research and Sponsored Programs